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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/913,375 | 11/29/2001 | Norbert Hanik | 2345/163 | 9519 |

26646 7590 10/06/2004

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| EXAMINER |
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PASCAL, LESLIE C

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| ART UNIT | PAPER NUMBER |
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2633

DATE MAILED: 10/06/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/913,375

Applicant(s)

HANIK ET AL.

Examiner

Leslie Pascal

Art Unit

2633

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 November 2001.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 10-18 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 10-18 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 5.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Art Unit: 2633

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 10-18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 10, "classifying the amplitude histogram of the signal according to at least one of bit error rates and fault causes by performing at least one of:

- (i) acquiring input data from the amplitude histogram, feeding the input data to a neural network generating at least one output value from the input data, and assigning the at least one output value to at least one of the bit-error rates of the optical signal; and
- ii) assigning the at least one output value to at least one of the fault causes of the optical signal" appears to be misdescriptive.

It appears that step i), as claimed, would have to be performed before step ii) could be performed because ii) uses the output value obtained by i). It appears that the applicant meant,

---classifying the amplitude histogram of the signal according to at least one of bit error rates and fault causes by:

acquiring input data from the amplitude histogram, feeding the input data to a neural network generating at least one output value from the input data, and performing at least one of:

i) assigning the at least one output value to at least one of the bit-error rates of the optical signal; and

ii) assigning the at least one output value to at least one of the fault causes of the optical signal---

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 10-11, 13-16 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mueller (of record) in view of Weinberg et al (5144642).

Mueller et al teach a method for monitoring transmission quality of an optical signal in an optical transmission system, the method comprising:

plotting an amplitude histogram of the optical signal transmitted over the optical transmission system;

classifying the amplitude histogram of the optical signal according to at

least one of bit error rates (last paragraph in the first column and last paragraph of the second column of page 708) and fault (abstract, figures 2-5) causes by performing at least one of:

(i) acquiring input data from the amplitude histogram, generating at least one output value from the input data, and assigning the at least one output value to at least one of the bit-error rates of the optical signal; and

Art Unit: 2633

ii) assigning the at least one output value to at least one of the fault causes of the optical signal. Although he does not teach specifics about how the output value is processed, Weinberg et al teaches that it is well known to use Neural networks (abstract and column 5, lines 25-29) in systems that monitor transmission quality (BER) and faults (column 5, line 66-column 6, line 2).

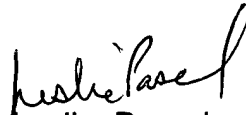
In regard to claim 11, in figure 1, the figure shows a Wavelength Division Multiplexer at the input and a Wavelength division demultiplexer at the output. In regard to claims 13-15, see the last paragraph of page 707. in regard to claim 18, see figures 2-4. in regard to claim 16, it would have been obvious to use a predetermined wavelength in order to which wavelength should be sampled and measured.

5. Claims 12 and 17 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leslie Pascal whose telephone number is 571-272-3032. The examiner can normally be reached on Monday, Friday 6:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Chan can be reached on 571-272-3022. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Leslie Pascal
Primary Examiner
Art Unit 2633
